



PREVENTION OPPORTUNITIES UNDER THE BIG SKY

TICKBORNE DISEASE & DAYLIGHT SAVINGS TIME ARRIVE TOGETHER IN MONTANA

Springtime is tick season in Montana. And for those living under the Big Sky, an occasional tick bite is certainly not an unexpected occurrence. Fortunately, most tick bites do not result in any disease. However, ticks in Montana can transmit some serious, even deadly diseases. The good news, though, is that there are prevention measures that one can take to reduce the risk of acquiring a tickborne illness. This issue of "Montana Public Health" addresses tickborne diseases in Montana and prevention steps that can be taken to control these diseases.

Which tickborne diseases occur in Montana?

Ticks can transmit a variety of infectious organisms to people. During the decade from 1995 to 2005 tickborne diseases reported in Montana included those caused by bacteria (e.g., Tularemia, Relapsing Fever), rickettsia (e.g., Rocky Mountain Spotted Fever, Q Fever), and viruses (e.g., Colorado Tick Fever) (Table). While the symptoms and signs of these diseases vary, an acute febrile illness and history of tick exposure (especially observed ticks or tick bites) often lead to serologically confirmed diagnosis.

Table: Tickborne disease reports, Montana, 1995-2005

<u>Disease</u>	<u>Number</u>
Colorado Tick Fever	33
Rocky Mtn. Spotted Fever	21
Tularemia	18
Relapsing Fever	7
Q-Fever	5
Tick Paralysis	3

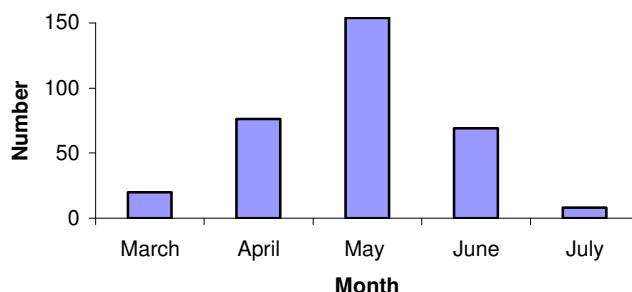
Tick feeding activity in Montana

Ticks are most active in Montana from late March until July (Figure 1). People should be on the lookout for ticks in town as well as when they're hiking, fishing or camping in the countryside. DPHHS is continuing to learn of tick bites within city limits, as more deer move into urban areas and bring their parasites with them.

What steps should be taken to avoid tickborne disease?

Montanans can protect themselves and their families from ticks by dressing appropriately when outdoors in tick habitat. Wear light colored clothing so

Figure 1: Number of tick specimens removed from humans, Montana, 2004-2005



ticks can be more readily seen. Tuck pants into sock tops so ticks can't crawl under clothing. Use repellants on clothing, according to manufacturer's directions. Avoid weedy areas and if possible, stick to paths. Do not allow pets to roam freely in tick infested areas. Pets can bring ticks into the home, and pets can become ill from tickborne diseases, too.

No indigenous Lyme Disease, but an unusual (unexplained) syndrome.

Noticeably absent from the list of tickborne diseases in Montana is Lyme Disease. While there have been several laboratory-confirmed cases of Lyme Disease identified among Montana residents over the years, such cases have invariably had a history of travel to an endemic area prior to their onset of illness. Thus, these cases have been regarded as imported cases, and not reported as Montana cases. Clinicians are urged to be on the lookout for cases among residents at risk due to travel.

The absence of indigenous Lyme Disease in Montana is probably due to the inability of *Dermacentor* ticks (the genus of ticks that feed on people in Montana) to

host *B. burgdorferi* (the spirochete that causes the disease).

On the other hand in recent years astute Montana clinicians have identified and reported cases with signs and symptoms compatible with Lyme Disease, but which have not lead to serologic confirmation. It is possible that a yet-to-be identified organism is causing a “bulls-eye” rash around the area of a tick bite and the febrile illness that leads patients to seek medical attention in Montana.

Request for reports

We are requesting that physicians and other health care providers report not only serologically confirmed reportable cases of tickborne disease, but also cases that present with a skin lesion such as that pictured in Figure 2.

Figure 2: Annular, erythematous skin lesion at the site of a Rocky Mountain Wood Tick (*Dermacentor andersoni*) bite.



Cases with this skin lesion can be reported directly to the DPHHS Communicable Disease Bureau, 406-444-0273.

Recommendations: Procedure for removing an attached tick

- Remove carefully as soon as tick is found
- Use forceps to grasp the tick as close to the skin as possible
- Pull gently, firmly and straight out until the tick is detached
- Wash the bite site and hands with warm water and soap
- If forceps are not available, shield fingers with tissue or rubber glove and perform above steps
- Ensure tick is dead before discarding in trash can, or flush down toilet (there is no need to save the tick for further examination)

For more information about tickborne disease in Montana contact your local health department or the state Communicable Disease Bureau, 406-444-0273, or go to <http://www.dphhs.mt.gov/PHSD/epidemiology/commun-disease-epi-index.shtml>.

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1400 Broadway
Helena MT 59620-2951
Joan Miles, MS, JD, Director, DPHHS
Steven Helgersen, MD, MPH, State Med. Officer
Jane Smilie, MPH, Administrator, PHSD